visual learning for teaching small children by association of an object such as a musical instruments or an animal which produces a distinctive sound with the viewable indicia associated therewith.

[0320] In one example the sound generated is music or song. The elements of the music such as pitch (which governs melody and harmony), rhythm (and its associated concepts tempo, meter, and articulation), dynamics, and the sonic qualities of timbre and texture, may be associated with the shape theme. For example, if a musical instrument shown in the picture, the music generated by that instrument will be played, e.g., drumming sound of drums and playing of a flute or guitar.

[0321] In one example according to the invention, a song or a melody of a song are played by the annunciator. Preferably, the song (or its melody) is associated with a module or system shape or theme. For example, the theme can be related to the calendar such as season or a holiday. For example, a theme of winter season showing rain or snow will be associated with a song about rain (such as "rain, rain") or about snowing, while a spring related theme may play the 'Spring Song'. Similarly, a theme of Christmas may be associated with Christmas related songs such as 'Santa Claus is coming to town' or 'Jingle Bells'. In another example, the theme includes an animal, and the song played is corresponding to the specific animal, such as the song 'Mary had a Little Lamb' for a theme showing a lamb, the song 'swan Lake' for a swan or 'B-I-N-G-O' for a dog theme. In the case that the theme relates to a specific location or a specific geography location or region (such as a continent, island, river, region, famous places, country, city etc.), a corresponding song may be played. For example, if the theme includes a map of a country (e.g., United-States) or the puzzle is shaped as the map of a country or a continent, a popular song related to the country or its national anthem (e.g., "The Star-Spangled Banner" for the US) may be played, thus helping in improving children learning about the world and geography. Some examples of geography related puzzles are disclosed in U.S. Pat. No. 6,425,581 to Barrett entitled: "Map Puzzle Game" and U.S. Patent Application 2008/0224396 to Cocis et al. entitled: "Jigsaw Educational Game", which are all incorporated in their entirety for all purposes as if fully set forth herein.

[0322] Other famous places may include the song 'London Bridge' for a theme of London or a bridge. In the case the theme relates to a specific activity (e.g., birthday party), the song or melody may correspond to the occasion (e.g., 'Happy Birthday' song). Similarly, a theme relating to household appliance (e.g. telephone) will be associated with a relevant related song (e.g. 'Mr. Telephone Man'). In the case the image (or shape) relates to a television or cinema character (e.g., 'Bob Sponge' and 'Spiderman'), the song may be associated with the respective movie or television show opening melody or song. The same goes for transportation, space and other common children or adult themes.

[0323] In one example according to the invention, a human voice talking is played by the annunciator. The sound may be a syllable, a word, a phrase, a sentence, a short story or a long story, and can be based on speech synthesis or pre-recorded. Male or female voice can be used, being young or old. The text sounded is preferably associated with the shape or theme. For example, a name of the theme of the system can be heard, such as 'dog', 'truck' and 'mountain'. Further, the story heard may be related to the theme, or can describe the items shown in the image. In another example, general encouraging, thanking or praising phrases can be made such as 'good work', 'excellent' and 'congratulations'. Further, a greeting such as 'Merry Christmas' can be played for a Christmas related theme. In another example, each module plays part of an audio chapter such as a song, melody, story or text. Each module plays part of the audio chapter such as a work, tune, syllable or word, such that when properly connected, the whole audio chapter is played. Such 'audio puzzle' provides amusement and can be played by children, trying to find the correct order of modules assembly to be rewarded by the complete and properly played audio part.

[0324] A tone, voice, melody or song sounder typically contains a memory storing a digital representation of the pre-recorder or synthesized voice or music, a digital to analog (D/A) converter for creating an analog signal, a speaker and a driver for feeding the speaker. An annunciator, which includes a sounder, may be based on Holtek HT3834 CMOS VLSI Integrated Circuit (IC) named '36 Melody Music Generator' available from Holtek Semiconductor Inc., headquartered in Hsinchu, Taiwan, and described with application circuits in a data sheet Rev. 1.00 dated Nov. 2, 2006, which is incorporated in their entirety for all purposes as if fully set forth herein. Similarly, the sounder may be based on EPSON 7910 series 'Multi-Melody IC' available from Seiko-Epson Corporation, Electronic Devices Marketing Division located in Tokyo, Japan, and described with application circuits in a data sheet PF226-04 dated 1998, which is incorporated in its entirety for all purposes as if fully set forth herein. A human voice synthesizer may be based on Magnevation SpeakJet chip available from Magnevation LLC and described in 'Natural Speech & Complex Sound Synthesizer' described in User's Manual Revision 1.0 Jul. 27, 2004, which is incorporated in its entirety for all purposes as if fully set forth herein. A general audio controller may be based on OPTi 82C931 'Plug and Play Integrated Audio Controller' described in Data Book 912-3000-035 Revision: 2.1 published on Aug. 1, 1997, which is incorporated in its entirety for all purposes as if fully set forth herein. Similarly, a music synthesizer may be based on YMF721 OPL4-ML2 FM+Wavetable Synthesizer LSI available from Yamaha Corporation described in YMF721 Catalog No. LSI-4MF721A20, which is incorporated in its entirety for all purposes as if fully set forth herein.

[0325] Some examples of prior-art toys that include generation of an audio signal such as music are disclosed in U.S. Pat. No. 4,496,149 to Schwartzberg entitled: "Game Apparatus Utilizing Controllable Audio Signals", in U.S. Pat. No. 4,516,260 to Breedlove et al. entitled: "Electronic Learning Aid or Game having Synthesized Speech", in U.S. Pat. No. 7,414,186 to Scarpa et al. entitled: "System and Method for Teaching Musical Notes", in U.S. Pat. No. 4,968,255 to Lee et al. entitled: "Electronic Instructional Apparatus", in U.S. Pat. No. 4,248,123 to Bunger et al. entitled: "Electronic Piano" and in U.S. Pat. No. 4,796,891 to Milner entitled: "Musical Puzzle Using Sliding Tiles", and toys with means for synthesizing human voice are disclosed in U.S. Pat. No. 6,527,611 to Cummings entitled: "Place and Find Toy", and in U.S. Pat. No. 4,840,602 to Rose entitled: "Talking Doll Responsive to External Signal", which are all incorporated in their entirety for all purposes as if fully set forth herein. A music toy kit combining music toy instrument with a set of construction toy blocks is disclosed in U.S. Pat. No.